CLAIM LISTING

1. (Original) A method of processing satellite positioning system data at a mobile receiver, comprising:

estimating, at said mobile receiver, first bit-transitions within satellite navigation data transmitted by at least one satellite;

generating a bit pattern including a known preamble and an extended preamble, said extended preamble comprising expected data bits within said satellite navigation data; and

comparing said first bit-transitions with second bit-transitions of said bit pattern to generate match data.

2. (Original) The method of claim 1, further comprising:

relating timing of said satellite navigation data with clock timing of said mobile receiver in response to said match data.

3. (Original) The method of claim 1, further comprising:

determining a time-of-week value from said satellite navigation data in response to said match data.

4. (Original) The method of claim 1, wherein said step of generating comprises:

obtaining a time estimate; and

forming at least a portion of said expected data bits in response to said time estimate.

5. (Original) The method of claim 4, wherein said forming step comprises:

creating bits of a time-of-week message using said time estimate.

6. (Original) The method of claim 4, wherein said time estimate is obtained from a server in communication with said mobile receiver.

7. (Original) The method of claim 4, wherein said time estimate is obtained from a clock disposed within said mobile receiver.

8. (Original) The method of claim 4, wherein said time estimate is computed as part of a navigation solution.

9. (Original) The method of claim 1, wherein said generating step comprises:

obtaining information associated with parameters in at least one of a telemetry word and a handover word; and

forming said expected data bits in response to said information.

10. (Original) The method of claim 9, wherein at least a portion of said information is received from a server in communication with said mobile receiver.

11. (Original) The method of claim 9, wherein said information comprises at least one of an estimated time, a telemetry message, an anti-spoof flag, and an alert flag.

12. (Original) The method of claim 10, wherein said expected data bits include first bits corresponding to parity values and second bits corresponding to an identification value, and wherein said first and second bits are computed in response to said information.

13. (Original). The method of claim 1, further comprising:

creating a mask in response to unknown bits within said satellite navigation data;

wherein said first bit-transitions and said second bit-transitions are compared using said mask.

14. (Original) The method of claim 1, wherein said estimating step comprises:

sampling at least one satellite positioning system signal to generate a sequence of digital samples;

correlating said sequence of digital samples with pseudorandom reference code data to generate a sequence of correlation results;

integrating said correlation results over a selected time period;

and determining said first bit-transitions in response to said integrated sequence of correlation results.

15. (Original) The method of claim 14, further comprising:

estimating a frequency error associated with said
integrated sequence of correlation results;

and frequency correcting said integrated sequence of
correlation results in response to said frequency error.

16. (Original) The method of claim 14, further comprising:

identifying phase transitions within said integrated
sequence of correlation results;

and re-integrating said correlation results over a second
selected time period between said identified phase
transitions;

wherein said first bit-transitions are determined in
response to said re-integrated correlation results.

17. (Original) A mobile receiver, comprising:

a satellite signal receiver for detecting satellite
navigation data transmitted by at least one satellite;

and a processor for generating a bit pattern including a
known preamble and an extended preamble and comparing first
bit-transitions within said satellite navigation data with
second bit-transitions of said bit pattern to generate
match data, said extended preamble comprising expected data
bits within said satellite navigation data.

18. (Original) The mobile receiver of claim 17, further comprising:

a clock;

wherein said processor is configured to relate first timing of said satellite navigation data with second timing of said clock in response to said match data.

19. (Original) The mobile receiver of claim 17, wherein said processor is configured to determine a time-of-week value from said satellite navigation data in response to said match data.

20. (Original) The mobile receiver of claim 17, further comprising:

a wireless transceiver for receiving a time estimate from a server;

wherein said processor is configured to form at least a portion of said expected data bits in response to said time estimate.

21. (Original) Apparatus for processing satellite positioning system data at a mobile receiver, comprising:

means for estimating, at said mobile receiver, first bit-transitions within satellite navigation data transmitted by at least one satellite;

means for generating a bit pattern including a known preamble and an extended preamble, said extended preamble

6

comprising expected data bits within said satellite navigation data; and

means for comparing said first bit-transitions with second bit-transitions of said bit pattern to generate match data.

22. (Previously Presented) The method of claim 1, further comprising:

despreading a GPS satellite signal before estimating.

23. (New) The mobile receiver of claim 17, wherein the processor estimates the first bit-transitions within the satellite navigation data.

24. (New) The mobile receiver of claim 20, wherein forming at least a portion of said expected data bits in response to said time estimate comprises:

creating bits of a time-of-week message using said time estimate.

25. (New) The mobile receiver of claim 20, wherein said time estimate is obtained from a server in communication with said mobile receiver.

26. (New) The mobile receiver of claim 20, wherein said time estimate is obtained from a clock disposed within said mobile receiver.

27. (New) The mobile receiver of claim 20, wherein said time estimate is computed as part of a navigation solution.

28. (New) The mobile receiver of claim 17, wherein generating comprises:

obtaining information associated with parameters in at least one of a telemetry word and a handover word; and

forming said expected data bits in response to said information.

29. (New) The mobile receiver of claim 28, wherein at least a portion of said information is received from a server in communication with said mobile receiver.

30. (New) The mobile receiver of claim 28, wherein said information comprises at least one of an estimated time, a telemetry message, an anti-spoof flag, and an alert flag.

31. (New) The mobile receiver of claim 29, wherein said expected data bits include first bits corresponding to parity values and second bits corresponding to an identification value, and wherein said processor computes said first and second bits in response to said information.

32. (New) The mobile receiver of claim 17, wherein the processor creates a mask in response to unknown bits within said satellite navigation data, compares said first bit-transitions and said second bit-transitions using said mask.

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33. (New) The mobile receiver of claim 23, wherein estimating comprises:

sampling at least one satellite positioning system signal to generate a sequence of digital samples;

correlating said sequence of digital samples with pseudorandom reference code data to generate a sequence of correlation results;

integrating said correlation results over a selected time period; and

determining said first bit-transitions in response to said integrated sequence of correlation results.

34. (New) The system of claim 33, wherein the processor estimates a frequency error associated with said integrated sequence of correlation results and frequency corrects said integrated sequence of correlation results in response to said frequency error.

35. (New) The mobile receiver of claim 33, wherein said processor identifies phase transitions within said integrated sequence of correlation results and re-integrates said correlation results over a second selected time period between said identified phase transitions, and determines said first bit-transitions in response to said re-integrated correlation results.